10.3197/whpjps.63887831800456


RESEARCH ARTICLE

# Child support: Social welfare, gender equality and population metrics

Michael R. Rosenthal[1]

## Abstract

Child support laws are found among most contemporary societies, yet correlational research on the demographic effects of child support remains sparse. This study compared the child support systems of 91 nations against 21 social, economic, health and environmental variables using a novel dataset and nonparametric statistical tests. Mann-Whitney and median tests revealed that robust national child support systems – equipped with a high number of enforcement mechanisms, a designated administrative agency and/or a public child support assurance program – were associated with a host of trends including lower unintended pregnancy and abortion rates, lower infant and maternal mortality rates, lower birth rates, a more educated female population and a higher ratio of women in parliament. The analysis concludes that child support is closely linked to national population metrics signifying better social welfare, gender equality and slower population growth.

## Keywords

Child support, social welfare, gender equality, abortion, population.

## Introduction

Humans engage in a unique way of caring for their young. Like most mammals, a human infant is born defenceless and dependent on adults for survival. Yet, unlike many mammals, human children rely on their caregivers for a prolonged period

1 West Chester University ORCID iD: 0009-0004-0877-5000. Contact: www.linkedin.com/in/mrrosenthal

of their lifespan, wherein they become physically and sexually mature, but are still gaining the knowledge and skills to navigate the complexities of human society (Diamond, 1993; Bogin and Smith, 1996). The years of effort parents devote to raising their children into independent adults result in a common value among cultures that parents bear the moral responsibility to maintain a long-lasting commitment to their progeny. This has resulted in a near universal consensus that it is immoral, and in most cases, illegal, not to provide adequate support to one's own children before they reach a state of independence in adulthood.

Of course, circumstances and sentiments among individual parents vary widely, causing governments to enact policies prohibiting child abandonment and obligating child maintenance. These laws generally mandate the transfer of money or assets from one parent to another after separation to ensure their child enjoys a quality of life that is equivalent to what both parents can provide. Child support policies have been implemented around the world in a variety of different forms, creating conditions for a natural experiment.

This research examined whether child support – a policy with near-universal adoption but variable implementation – correlates with demographic patterns indicating social welfare, gender equality and population growth. Testing child support policy strictness and structure against 21 national demographic variables across 91 countries, it was hypothesised that robust child support systems would be associated with lower birth rates, reduced unintended pregnancies and abortions, improved maternal and child health, and better gender equality. The analysis found consistent associations supporting these hypotheses, suggesting that child support policy may function as an understudied lever in global demographic outcomes. It is concluded that child support is a cost-effective, bipartisan policy that, when properly administered and enforced, may yield more benefits than previously recognised.

## Prior literature

Since the mid-1900s, there have been sweeping changes to the human social structure. Marriage rates have declined sharply (Demographic, 2023) and children born to married parents have become a smaller fraction of global births with each passing decade. As evidence, the average proportion of unmarried births in countries belonging to the Organisation for Economic Co-operation and

Development (OECD) has ballooned from six per cent in 1960 to 40.2 per cent in 2020 (OECD Family Database, 2022). Meanwhile, effective and affordable contraception has become widely available, with its use among married women doubling since 1970 (Contraceptive, 2024).

The proportion of women completing secondary education has also more than doubled over the course of just a few decades (Lower secondary, 2023), and an increasing number of women from rich and poor countries alike are choosing to enter the labour force (Goldin, 1994), though they still face wage disparities compared to men (Global Wage, 2018). Given these widespread trends, it is unlikely that a vast majority of children will be born into traditional, single-earner, nuclear families in the coming decades.

Child support (*child maintenance* or *child alimony*, interchangeably) is defined for the purposes of this research as legally mandated transfers of funds from one parent to another for the benefit of a child (Child support, 2022). Inclusive in this definition are the less common instances of prenatal support and maintenance paid directly to adult children. Child support is intended to ensure a child's standard of living is approximately commensurate with the income of both parents, with the secondary aims of preventing family reliance on other forms of state and social assistance and holding parents accountable for maintaining their own children. In this sense, child support functions as more than an excise tax on non-custodial parents. It provides basic protection against the widely denounced crime of child abandonment and has been enshrined in Article 27 of the United Nations Convention on the Rights of the Child (1989), occupying a middle ground between governments explicitly controlling the reproductive decisions of citizens and allowing parents to shed all responsibility for the children they conceive.

Like many taxpayer-funded welfare programmes, child support is highly complex, requiring the establishment of filiation and custody, determining appropriate awards and tracking obligor income. Unlike other welfare programmes, however, child support remains largely uncontroversial among nations of all sizes, political regimes and creeds – typically receiving support from those seeking to reduce child poverty and others pushing to cut welfare expenses and crack down on non-compliant or payment-defaulting parents (Cook et al., 2024).

The origins of contemporary western child support policy can be traced back to the English Poor Laws of the late 1500s and early 1600s. Passed in response to a severe economic downturn in the United Kingdom, the Poor Laws granted local parishes the authority to raise taxes and provide alms for vagrant, unemployed and helpless residents (Hansan, 2011). These laws explicitly proclaimed that parents were required to keep and maintain their children. When parishes provided support to unwed single mothers, they would then work to recoup these funds from the absent fathers (Bloy, 2002; Nutt, 2006).

By contrast, child support in many predominantly Muslim nations is based on traditional Shariah law, which derives its mandates from the Quran. While Shariah law dictates maintenance owed to wives and children by married men, it offers little acknowledgement to children born out of wedlock (Mughniyya, 2016).

Jurisdiction over child support is usually granted to local courts. However, the evolving needs of families have caused a handful of countries to establish administrative agencies specifically devoted to processing child support cases. Because these agencies often share jurisdiction with family courts, it became necessary to reconcile judicial and administrative child support schemes so that both are governed by the same rules and procedures (Carbone, 2000). A small number of countries, such as Norway, Australia, Denmark, Iceland, New Zealand and the United Kingdom have given nearly all jurisdiction over child support to administrative agencies.

There have been various benefits and drawbacks to delegating child support to administrative agencies. Courts operate mainly on a discretionary basis where the details and circumstances of each case are examined in context, while agencies take a more standardised, formulaic approach (Bernardi and Mortelmans, 2021) and are able to handle petitions more efficiently by following a strict set of guidelines, as opposed to judicial discretion, for how child support is calculated and enforced (Skinner et al., 2007; Skinner and Davidson, 2009). The administrative approach helps save petitioners both time and money by removing the need to schedule court appearances and hire legal representation; two hurdles that can discourage custodial parents from seeking child support (Cook, 2022). However, some have voiced concerns that administrative child support agencies are undemocratic in that they are often managed by appointed officials and directed

by a complex set of rules and protocols over which the common citizen has little influence (Gay, 2003).

A new paradigm in child support policy emerged in the 1990s when, in response to rising divorce rates and welfare expenditures, policymakers began to view child support as an opportunity to reduce single-parent welfare dependency by passing these costs on to noncustodial parents (Hansen, 1999; Solomon-Fears, 2016). This paradigm shift coincided with a movement among some nations to establish publicly-funded assurance programs that guarantee child support income to custodial parents when an obligor fails to pay (Skinner et al., 2007; Hakovirta et al., 2020). Backing child support obligations with public funds while working to recoup these payments from debtors was seen as an effective way to decrease child poverty at minimal taxpayer expense.

In recent decades, child support has evolved into highly sophisticated programmes with many moving parts. Innovations in public records and data management systems have made new enforcement mechanisms possible to implement at mass scale. Employment registers, tax records and credit reporting agencies now track citizen financial activity in many nations, allowing governments to more easily garnish wages, seize assets and freeze the bank accounts of debtors. Modern border protections also make it difficult for child support obligors to flee their home countries. For those who do emigrate, enforcing maintenance orders across borders has become less daunting thanks to international treaties like the 1989 Inter-American Convention on Support Obligations and the 2007 Hague Convention on the International Recovery of Child Support.

Perhaps the most important development in the history of child support has been the invention of genetic paternity tests. Genetic testing has successfully moved most countries away from archaic witness-based or marriage-based means of establishing filiation in favour of vastly more accurate DNA analysis (Pena and Chakraborty, 1994), although the costs of such tests remain a significant barrier to uptake in some nations.

While there is ample evidence that child support laws accomplish the goal of reducing child poverty (Cuesta and Meyer, 2014; Cuesta et al., 2018; Hakovirta and Jokela, 2018) studies suggest that child support policy can exhibit secondary

effects on reproductive decisions. Knowing that child support laws can impose financial consequences on having a child, even without custody of said child, has been found to result in an increased use of contraceptives (Huang and Han, 2004, 2007) and it is generally concluded that child support enforcement creates a tempering effect on birth rates (Aizer and McLanahan, 2006; Case, 1998; Huang and Han, 2012), especially among unmarried partners (Plotnick et al., 2007), teenagers (Plotnick et al., 2004), those who already pay child support (Anderson, 2011) and those who know someone with a child support order (Huang and Han, 2004).

Strong child support laws are also found to be associated with fewer total abortions, which is likely due to a parallel decrease in unintended pregnancies (Crowley et al., 2012; Tannenbaum, 2020). When unintended pregnancies do occur, the promise of receiving payments to reduce the cost of childrearing may cause women to be less hesitant to carry a baby to term (Garfinkel et al., 2003; Cowan and Douds, 2022; González and Trommlerová, 2023).

Child support appears to exhibit a much weaker effect on marital birth rates (Huang, 2001), presumably since married partners have already taken steps to form a committed family unit and have exposed themselves to the risk of financial losses associated with divorce. Considering the global decline in married births, national child support policies are likely to be exerting greater influence on reproductive decisions than ever before. This research examines whether the above findings are similarly reflected in global demographic data.

## Methods

This study sought to identify specific demographic variables associated with national child support policy structure. Possible reverberating effects of child support systems were identified by comparing national child support laws with 21 corresponding demographic variables utilizing Mann-Whitney, Mood's median and other nonparametric statistical tests.

### *Sample*

A sample of 91 countries across six continents was compiled by combining eight sources of international child support policy data (Table 1).

**Table 1. Sources dictating inclusion in the sample**

| Source | Type |
|---|---|
| Cuesta, Hakovirta, Haapnanen and Meyer, 2023 | Systematic review |
| Hakovirta and Mesiäislehto, 2022 | Systematic review |
| OECD Family Database | International database |
| Thomson Reuters Practical Law Connect | International database |
| European e-Justice Portal | International database |
| Nordic Council | International database |
| Hague Conference on Private International Law | International database |
| Inter-American Convention on Support Obligations | International agreement |

These sources represent some of the largest publicly accessible datasets on national child support law, covering 78 per cent of the global population and 74 per cent of Earth's total inhabited land area. Though an outsized portion of available data is derived from Europe, this sample was spread among six continents (Table 2) to reduce regional bias and support external validity and global generalisation. Countries that did not appear in the above sources were excluded from the sample.

**Table 2. Sample countries by CIA World Factbook (2023) regions**

| Region | *N* | % |
|---|---|---|
| Africa | 14 | 15.4 |
| Australia and Oceania | 2 | 2.2 |
| Central America and the Caribbean | 7 | 7.7 |
| Central Asia | 3 | 3.3 |
| East and Southeast Asia | 10 | 11.0 |
| Europe | 35 | 38.5 |
| Middle East | 5 | 5.5 |
| North America | 3 | 3.3 |
| South America | 10 | 11.0 |
| South Asia | 2 | 2.2 |
| **TOTAL** | **91** | **100.0** |

*Variables*

Each country's child support system was scored based on how many of a predetermined set of enforcement mechanisms were established to maintain compliance. These nine enforcement mechanisms, compiled from an initial review of the literature, were as follows:

1. **Minimum Payments** (debt accrues even with no obligor income or assets)
2. **Cross-Border Treaties** (extraterritorial enforcement)
3. **Garnishments/Liens/Holds/Attachments** (income and assets may be seized)
4. **Fees/Interest** (increases to total amount owed)
5. **Withholding Government Payments/Services** (tax refunds, licences, permits or welfare payments withheld)
6. **Credit Reporting** (ability to obtain credit impacted)
7. **Travel Restrictions** (driver's license or passport rescinded)
8. **Criminal Penalties** (fines or imprisonment)
9. **Public Shaming** (placement on a public list of child support debtors)

Sources reviewed for evidence of child support structure and enforcement mechanisms were identified and collected through West Chester University Libraries, Google Search and Google Scholar. These sources included civil, criminal and family legal codes, official government publications, peer-reviewed research, news articles, and law firm content (see supplementary materials). When necessary, web pages and legal documents were translated to English using Google Translate. Information not derived from a government or peer-reviewed publication was corroborated by at least one additional source to maintain consistent data quality throughout the study. Countries lacking quality or sufficient data were excluded from the sample.

Next, national child support systems were evaluated on whether they included an administrative child support agency and/or a public assurance programme – all entered as binary yes/no variables. Finally, 21 additional population metrics were compiled from multinational datasets to test a wide range of factors that could be associated with child support policies (see Appendix, Table A1 for list of variables and sources).

In limited instances, additional steps were taken to recode the raw data. The number of enforcement mechanisms was summed into a country's total child support enforcement score and recoded into a binary variable of low (0–4) or high (5–9) to ensure statistical tests with this variable had sufficient group sizes. Due to the inconsistent availability of annual divorce rate data, crude divorce rates were averaged over the period of 2018 to 2022.

*Analysis*

Child support enforcement data were entered manually into a REDCap online database (Harris et al., 2009, 2019) and exported to the International Business Machines Statistical Package for the Social Sciences (SPSS) for analysis. Additional national demographic variables were matched and added to the SPSS dataset from comma-separated value (CSV) files.

Frequency distributions and descriptive statistics were compiled to display variable characteristics and levels of skewness and kurtosis were calculated to evaluate data normality. Only three variables (divorce rates, female seats in parliament, Hofstede individuality) showed nonsignificant Shapiro-Wilk scores ($\alpha = .05$) and, thus, most variables were assumed to have non-normal distributions. Nonparametric tests were ultimately chosen for this analysis since they reduce the effects of outliers and rely on less assumptions of normality in data distribution.

Chi square tests were conducted to discern relationships between categorical variables, and Mann-Whitney U tests were performed on interval variables grouped by child support policy characteristics to identify significant differences in group distributions (specifically, the summed ranks of the data points within each group). Median tests were then used to evaluate differences in group medians, with Yates's Continuity Correction producing more conservative figures to reduce the risk of finding a significant difference between medians (type I error) where none exists.

*Limitations*

This study was based on a non-random sample of nations selected by compiling global, public-use datasets of child support laws. Because countries absent from the above sources were excluded, the sample is assumed to be biased toward nations that have child support policies in place, collect data on how child support is enforced, and/or are parties to international child support treaties. Additionally, all datasets and instruments used in this analysis may be subject to their own biases and limitations.

It is difficult to study child support using positivist methods of policy evaluation when so many factors are left to the discretion of family courts, and when the reverberating effects are often delayed and indirect. Since child support simply increases the income of a custodial parent, all other benefits stemming from its enforcement are, at best, secondary and tertiary in nature.

National demographic metrics themselves are influenced by countless interacting components, with child support being one of many factors that influence human reproductive and economic outcomes. The internal validity of this study was therefore limited by the implausibility of inferring a direct causal link between child support policy and population demographics, as there are too many confounding variables and feedback loops to consider. As such, the study's objectives were limited to identifying various associations between child support policy and population demographics that can be examined more thoroughly with localised econometric analysis. Further investigation may also help establish the reliability of this methodology, given that this was the first attempt to score child support policies based on the stated criteria.

The effectiveness of child support policies and the strictness of their enforcement can be evaluated from many angles, such as the percentage of single parents receiving child support, the percentage of cases in arrears, the total value of arrears, and total spending on child support enforcement. This study used the number of enforcement mechanisms in place against noncompliance to represent the relative strength of child support policies. There was no attempt to measure how often these mechanisms are utilised or how effective they are at inducing payment.

While this rating system attempted to capture the various means that child support policy is enforced, the following enforcement mechanisms, identified during the later stages of data gathering, were not accounted for in the scoring system:

1. Revoking child custody and/or visitation rights
2. Barring debtors from running for or holding public office
3. Passing child support debt on to other relatives

These particular mechanisms are rarely found in the literature, though they may exhibit measurable effects on overall levels of compliance. Passing child support obligations on to the next of kin is perhaps the most consequential of these factors in that it may represent a *de facto* form of guaranteed maintenance. If an obligor fails to pay, the burden falls on the next family member in line. This creates what may amount to a child support assurance scheme, though it is doubtful these laws are as effective as disbursing payments from public coffers.

Lastly, given the large number of data sources employed in this study, all variables were intended to reflect the most recent year available. This resulted in a dataset composed of variables sourced mostly between 2019 and 2023, as opposed to all falling in the same year, which may limit the study's ability to create a precise cross-section of the sample population.

## Results by child support policy attribute

Of the 91 countries included in the sample, 24 (26.4%) had administrative agencies for processing child support cases while 27 (29.7%) had a public child support assurance programme in place. Thirty-six countries fell into the low enforcement category with 0–4 enforcement mechanisms and 55 countries fell into the high enforcement category with 5–9. The median number of enforcement mechanisms per country was 5 and the mode was also 5 ($n$ = 22). The most common enforcement mechanisms were *garnishments/liens/holds/attachments* ($n$ = 84) and *criminal penalties* ($n$ = 81). The least common enforcement mechanisms were *credit reporting* ($n$ = 23) and *public shaming* ($n$ = 13). See Appendix, Table A2 for the full frequency table.

The existence of any of the three characteristics correlated with the existence of the other two. Countries with a high number of enforcement mechanisms were four times more likely to have an administrative child support agency than not ($\chi^2$ = 7.145, $p$ = .008) and five times more likely to have a public assurance program than not ($\chi^2$ = 9.832, $p$ = .002), indicating that strict enforcement is often tied to the underlying structure of a child support system.

*Enforcement scores*

As predicted, high child support enforcement scores were associated with several global demographic trends. The median abortion rate of high enforcement countries was half that of the low enforcement group (15.85 versus 31.43 per 1,000 women), as were unintended pregnancies (35.78 versus 75.21 per 1,000 women). Median infant mortality was much lower in the high enforcement group (4.9 versus 18.55 per 1,000 live births) and so was the median maternal mortality (11.41 versus 98.82 per 100,000 live births). As a group, countries with high child support enforcement scores were also significantly wealthier, happier and more educated than those with low enforcement scores, among other positive metrics (see Appendix, Table A4).

From a granular perspective, the research revealed that child support enforcement methods tend to differ regionally based on a variety of cultural and political factors. For example, the post-Soviet states have relatively harsh punishments for noncompliance compared to other nations, while tourist destinations like the Philippines appear to be focused more on procuring child support payments from foreigners. Child support enforcement in many parts of the African continent continues to be hindered by difficulties in registering filiation and tracking obligor income as governments work to build up the necessary technology and record-keeping infrastructure.

Child support in systems in countries with high Muslim populations, such as Malaysia, are often built upon traditional laws automatically assigning custody based on the age or sex of the child and the sex, marital status and religion of the parent. In most Muslim theocracies, child and spousal maintenance falls under the authority of clerics who approach awards and enforcement through the lens of Shariah law, while non-Muslims are held to different sets of secular or religious laws according to their faith.

In South and Central America, a so-called crisis of single parenthood has inspired nations to ramp up child support enforcement and publish child support debtor lists Zea, 2023). Some have even taken the pivotal step of allowing mothers to establish paternity upon the birth of their child by simply naming the father (Grossman, 2021). Under this *opt-out* or *responsible paternity* model (Milanich, 2017), alleged fathers are presumed to be a child's parent and liable for maintenance until proven otherwise by a DNA test, saving single mothers the time and stress of seeking the cooperation of an unwilling ex-partner to establish filiation.

*Administrative agencies*

While most countries in the sample adjudicate child support in civil and family courts, approximately 1/4 of the sample ($n$ = 24) has granted a separate administrative agency the authority to process and enforce child support orders. These nations tend to be wealthier in both median gross domestic product (GDP) and gross national income (GNI) per capita, have a greater median percentage of women in parliament and score much lower on the Gender Inequality Index than countries with only court-based systems (see Appendix, Table A5).

Countries with administrative child support agencies were also found to experience much less government corruption, with a median score on the Corruption Perception Index that is 79 per cent better than those without (71.67 versus 40.00, with 100 signifying the least corruption). This reinforces the view of Holmes and Sunstein that 'equal treatment before the law cannot be secured over a vast territory without relatively effective, honest, centralized bureaucratic agencies capable of creating and enforcing rights' (1999: 58).

Nations with administrative child support agencies showed similarly high Hofstede Individualism scores, indicating that citizens tend to prioritise themselves and their immediate families over their neighbours and communities. This may explain why individualistic nations are more prone to rely on the state to dictate child maintenance as opposed to informal social safety nets – a notion that is backed by Deneen (2018) and Marohn (2020), who argue that individualism and statism go hand-in-hand. Interestingly, Corruption Perception Index scores also displayed a strong positive correlation with Hofstede Individualism scores ($\tau b = .597$, $p < .001$), suggesting that the more individualistic a nation is, the less government corruption it tends to experience.

*Public assurance*

Child support assurance (also known as *guaranteed maintenance* or *advanced maintenance*) refers to a programme that ensures custodial parents receive child support regardless of an obligor's ability or willingness to pay. In most cases, custodial parents are granted advanced payments immediately from public funds that are later recouped from the obliging parent. Approximately a third of the countries studied ($n$ = 27) had publicly funded child support assurance programmes in place, guaranteeing income to custodial parents when obligors fail to pay. Most of these assurance programmes are found in Europe, with the exceptions of Malaysia and South Korea.

The most noteworthy attributes of nations that invest in child support assurance programmes are their reproductive outcomes, which stood in stark contrast to those without a public guarantee. Specifically, they have less than half the median unintended pregnancy rate, a third the median abortion rate, a quarter of the median infant mortality rate, a fifth of the median adolescent birth rate, and a thirteenth of the median maternal mortality rate compared with nations without child support assurance (Appendix, Table A6). Indicators of social welfare and gender equality in nations with child support assurance also stand out, with considerably low levels of child poverty, more income distributed to the bottom half of earners and better scores on the Gender Inequality Index.

## Areas of further analysis

There were three specific areas of interest that merited deeper analysis into the relationship between child support policy and demographic trends: social welfare, gender equality, and population growth.

*Social welfare*

Of Esping-Andersen's (1990) three welfare typologies – liberal, conservative and social democratic – it is primarily well-established social democratic regimes that have folded child support into their overarching systems for the eradication of poverty. By contrast, liberal regimes tend to use child support primarily to offset other welfare outlays and conservative regimes enforce child support as a safety net when all other informal options have failed (Cook et al., 2024).

From a more nuanced perspective, child support does not easily fit among typical welfare entitlement programmes since it often exists within a niche area of civil and family litigation. In instances where child support does resemble means-tested social programmes, it rarely follows the Rawlsian principle of prioritising benefits for the least advantaged members of society (Rawls, 1971). On the contrary, child support is available to the poor and wealthy alike and is often paid in greater sums among the wealthy.

Child support policies also rarely seek to create consistency of outcomes via coercive or paternalistic (Mead, 1997) methods of social control by dictating how parents spend these funds. Instead, child support payments can be seen as a type of unconditional cash transfer where there can be no guarantee the money will be spent on basic needs. The various benefits and drawbacks of unconditional cash transfers as a welfare instrument remain a source of ongoing debate among scholars (Baird et al., 2013; Aizer et al., 2016; Handa et al., 2018; Bastagli et al., 2019). However, as an administrative programme, this model is relatively inexpensive to maintain. In the United States, the House Committee on Ways and Means recently noted that for every $1.00 spent on child support operations in 2023, nearly $5.00 was collected for families, making child support one of the most cost-effective federal programmes (Bipartisan, 2024).

Critics have warned that, because child support can offset other welfare benefits to creditors while reducing the income of debtors, it puts downward economic pressure on people living in poverty, who, as a group, tend to have more children (Birdsall and Griffin, 1988; Dribe et al., 2014) and are more likely to be single parents (Nieuwenhuis and Maldonado, 2018) than those earning above the poverty line. Others posit that child support policies may simply reshuffle child poverty when payments benefit a parent's non-custodial children while simultaneously taking resources away from children of whom they have custody. While these concerns are valid, research suggests that child support payments result in a net-reduction in overall child poverty with minimal poverty-reshuffling effects (Cuesta and Meyer, 2018). As evidenced in this study, countries with robust child support systems are more likely to have low child poverty rates, high GDP and GNI per capita, and a greater share of total income going to the bottom fifty per cent of earners.

*Gender equality*

National child support policies rarely include an explicit differentiation between the sex of the parents or their children - with the exception of countries where religious and social traditions bifurcate the legal rights of citizens based on sex. Yet it is important to acknowledge that the vast majority of global child support cases involve custodial mothers seeking support from non-custodial fathers (Cook, 2022; Cook et al., 2024). In the United States alone, it is estimated that women maintain upwards of eighty per cent of one-parent families (Census Bureau, 2022).

While this research does not attempt to provide specific reasons why men and women are more likely to play certain familial roles, it is assumed that child support is prioritised and written into law when groups with sufficient political influence take action (Birkland, 2015). Thus, the percentage of women who vote, lobby and/or hold office within a nation is likely to be a strong factor in the formation and passage of child support law, which helps explain the observed link between gender equality indicators and child support policy structure. Given child support's association with lower unintended pregnancy rates, abortion rates, child poverty rates and infant/maternal mortality rates, effective child support policy should continue to be top-of-mind for the global feminist and women's rights movements.

*Population growth*

Population change can be considered positive or negative depending on a diverse range of viewpoints. Economists who link rising numbers with public optimism, a growing workforce and consumer base, and an increase in the *ultimate resource* of human ingenuity (Simon, 1981) may be happy to see steadily increasing national populations. Environmentalists, on the other hand, tend to link population growth with unsustainable levels of resource consumption, habitat destruction and pollution, and see population decline as a necessary step to avoiding ecological crisis (Lianos and Pseiridis, 2016; Samways, 2022; Saraswati et al., 2024).

Data from the sample indicated that strong child support systems were associated with lower birth rates. The median crude birth rate in high child support enforcement countries was 36% lower than that of low enforcement countries ($p = .015$), while median crude birth rates were 31% lower in countries

with administrative agencies ($p$ = .002) and 42% lower in those with public assurance programmes ($p$ < .001) compared to those without (see Appendix, Tables A4–A6).

Birth rates are not the only factor influencing national population levels, however. Migration, life expectancy and age at childbearing similarly determine whether a national population is growing or shrinking. In fact, it is more pertinent to examine the rate of natural increase (births minus deaths) or change in total population over time when analysing population growth. Calculating the median rate of natural increase and the median ten-year percentage change in total population of the groups, countries with strong child support programmes were found to be growing much more slowly relative to their counterparts (Table 3).

**Table 3. Population growth by child support policy attribute**

| Group | 2022 Median Rate of Natural Increase (births minus deaths per 1,000 people) | 2013–2023 Median % Population Change (over period) |
|---|---|---|
| Enforcement Score | | |
| Low (0–4) | 9.9 | 14.7 |
| High (5–9) | .9 | 6.4 |
| Administrative Agency | | |
| No | 7.2 | 11.0 |
| Yes | .9 | 6.4 |
| Public Assurance | | |
| No | 7.9 | 12.5 |
| Yes | -2.3 | 3.3 |

*Note*. Shaded cells were not statistically significant at $\alpha$ = .05.

Nevertheless, immigration and longer life expectancies continue to make national populations resistant to falling birth rates. Only 31 countries in the sample are currently showing a negative rate of natural increase and only fifteen have experienced an absolute decrease in population over the past decade.

## Conclusion

This cross-national study examined child support policy across 91 countries, revealing consistent patterns linking robust child support systems to positive demographic outcomes. Countries with strong child support enforcement mechanisms, designated administrative agencies and public assurance programmes demonstrated significantly lower rates of unintended pregnancy and abortion, reduced infant and maternal mortality, lower birth rates, and greater gender equality. These findings suggest that child support functions not only as a poverty reduction measure, but as a policy tool that could be influencing global reproductive and demographic patterns.

Nations that implement robust child support programmes with administrative agencies, public assurance and high enforcement tended to be those that are highly individualistic, with low levels of perceived government corruption. These nations were often wealthier per capita, with low child poverty rates and a greater percentage of income going to the bottom half of earners.

The observed relationship between child support systems and gender equality indicators likely reflects a bidirectional dynamic. As women gain political voice and economic power, they are better positioned to advocate for child support policies that protect their interests and those of their children. Conversely, strong child support enforcement and guaranteed payments may empower women by providing economic security when raising children outside of traditional family structures.

The association between strong child support enforcement and lower birth rates indicates that financial accountability for childrearing may encourage more deliberate family planning. When individuals understand that having a child carries enforceable financial obligations regardless of relationship status or custody arrangements, they are more likely to use contraception effectively and consider the timing and circumstances of parenthood more carefully.

While child support policy enjoys unusual bipartisan support across the political spectrum – appealing to those concerned with both child poverty reduction and fiscal responsibility – its implementation varies considerably across nations. The evidence presented here suggests that countries may benefit from moving

beyond basic child support mandates to establish comprehensive systems featuring multiple enforcement mechanisms, standalone administrative agencies and public assurance programmes that guarantee minimum support levels regardless of obligor compliance.

Future research should explore the mechanisms through which child support policies could produce these demographic effects, including longitudinal studies tracking the impacts of policy changes over time. Additionally, investigating how child support systems interact with other family policies such as parental leave, childcare subsidies and reproductive healthcare access, would provide a more complete understanding of the observed trends.

Child support offers a pragmatic, politically viable lever that operates at the intersection of social welfare, gender equality and population growth. Unlike coercive population policies that violate reproductive rights, child support enforcement works through economic incentives that encourage deliberate family planning while protecting child welfare. For policymakers concerned with both population sustainability and social equity, strengthening child support systems represents a rare opportunity to advance multiple objectives simultaneously: moderating population growth through voluntary fertility decline, reducing child poverty and maternal mortality, and advancing gender equality. In an era of global population transition, child support reform deserves recognition as a component of both welfare and sustainability policy.

## References

Aizer, A., S. Eli, J. Ferrie and A. Lleras-Muney. 2016. 'The long-run impact of cash transfers to poor families'. *American Economic Review* **106** (4): 935–71. https://doi.org/10.1257/aer.20140529

Aizer, A. and S. McLanahan. 2006. 'The impact of child support enforcement on fertility, parental investments, and child well-being'. *Journal of Human Resources* **XLI** (1): 28–45. https://www.jstor.org/stable/40057256 https://doi.org/10.3368/jhr.XLI.1.28

Anderson, K.G. 2011. 'Does paying child support reduce men's subsequent marriage and fertility?' *Evolution and Human Behavior* **32** (2): 90–96. https://doi.org/10.1016/j.evolhumbehav.2010.08.008

Baird, S., F.H.G. Ferreira, B. Özler and M. Woolcock. 2013. 'Relative effectiveness of conditional and unconditional cash transfers for schooling outcomes in developing countries: A systematic review'. *Campbell Systematic Reviews* **9** (1): 1–124. https://doi.org/10.4073/csr.2013.8

Bastagli, F., J. Hagen-Zanker, L. Harman, V. Barca, G. Sturge and T. Schmidt. 2019. 'The impact of cash transfers: A review of the evidence from low- and middle-income countries'. *Journal of Social Policy* **48** (3): 569–94. https://doi.org/10.1017/S0047279418000715

Bernardi, L. and D. Mortelmans. 2021. *Shared Physical Custody: Interdisciplinary Insights in Child Custody Arrangements*. Cham, Switzerland: Springer Nature. https://doi.org/10.1007/978-3-030-68479-2

Bipartisan Majority in House Approves Historic Legislation to Help Children and Families, Strengthen Child Support Enforcement. 2024. *Committee on Ways and Means*. Online at https://waysandmeans.house.gov/2024/09/20/bipartisan-majority-in-house-approves-historic-legislation-to-help-children-and-families-strengthen-child-support-enforcement/ (accessed 8 February 2025).

Birdsall, N.M. and C.C. Griffin. 1988. 'Fertility and poverty in developing countries'. *Journal of Policy Modeling* (Serie Special Issue: Modeling Demographic and Economic Dynamics) **10** (1): 29–55. https://doi.org/10.1016/0161-8938(88)90034-8

Birkland, T.A. 2015. *An Introduction to the Policy Process*. New York: Routledge. https://doi.org/10.4324/9781315717371

Bloy, M. 2002. 'The 1601 Elizabethan Poor Law'. *The Victorian Web*: https://www.victorianweb.org/history/poorlaw/elizpl.html (accessed 15 February 2025).

Bogin, B. and B.H. Smith. 1996. 'Evolution of the human life cycle'. *American Journal of Human Biology: The Official Journal of the Human Biology Association* **8** (6): 703–16. https://doi.org/10.1002/(SICI)1520-6300(1996)8:6<703::AID-AJHB2>3.0.CO;2-U

Carbone, J. 2000. 'Child support comes of age: An introduction to the law of child support'. In J.T. Oldham and M.S. Melli (eds), *Child Support: The Next Frontier*, pp. 3–15. Ann Arbor, MI: University of Michigan Press.

Case, A. 1998. 'The effects of stronger child support enforcement on nonmarital fertility'. In I. Garfinkel, S. McLanahan, D. Meyer and J. Seltzer (eds), *Fathers under Fire: The Revolution in Child Support Enforcement*, pp. 191–215. New York: Russell Sage Foundation.

Census Bureau Releases New Estimates on America's Families and Living Arrangements. 2022. *Census.gov*. https://www.census.gov/newsroom/press-releases/2022/americas-families-and-living-arrangements.html (accessed 21 June 2025).

Child Support: An Overview. 2022. *LII / Legal Information Institute:* https://www.law.cornell.edu/wex/child_support (accessed 1 February 2025).

Contraceptive prevalence: Any method. 2024. *United Nations, Department of Economic and Social Affairs, Population Division:* https://population.un.org/dataportal/data/indicators/1/locations/900/start/1950/end/2030/table?df=a5d4e175-df11-4bfe-a99e-0ccd4d780435 (accessed 8 February 2025).

Convention on the Rights of the Child. 1989. *OHCHR:* https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child (accessed 2 February 2025).

Cook, K. 2022. *The Failure of Child Support: Gendered Systems of Inaccessibility, Inaction and Irresponsibility*. Bristol: Policy Press. https://doi.org/10.1332/policypress/9781447348863.001.0001

Cook, K., T. Meysen and A. Byrt. 2024 'Single parents and child support systems: An international comparison'. In K. Cook, T. Meysen and A. Byrt (eds), *Single Parents and Child Support Systems: An International Comparison*. New horizons in social policy. Cheltenham, UK: Edward Elgar Publishing. https://doi.org/10.4337/9781800882409

Cowan, S.K. and K.W. Douds. 2022. 'Examining the effects of a universal cash transfer on fertility'. *Social Forces* **101** (2): 1003–30. https://doi.org/10.1093/sf/soac013

Crowley, J.E., R. Jagannathan and G. Falchettore. 2012. 'The effect of child support enforcement on abortion in the united states'. *Social Science Quarterly* **93** (1): 152–72. https://doi.org/10.1111/j.1540-6237.2011.00829.x

Cuesta, L., M. Hakovirta, M. Haapanen and D.R. Meyer. 2023. 'Child support policy in middle- and low-income countries: Current approaches and policy dilemmas'. *Journal of International and Comparative Social Policy* **39** (1): 64–83. https://doi.org/10.1017/ics.2023.4

Cuesta, L., M. Hakovirta and M. Jokela. 2018. 'The antipoverty effectiveness of child support: Empirical evidence for Latin American countries'. *Social Policy & Administration* **52** (6): 1233–51. https://doi.org/10.1111/spol.12437

Cuesta, L. and D.R. Meyer. 2014. 'The role of child support in the economic wellbeing of custodial-mother families in less developed countries: The case of Colombia'. *International Journal of Law, Policy and the Family* **28** (1): 60–76. https://doi.org/10.1093/lawfam/ebt016

Demographic and Social Statistics. 2023. *United Nations Statistics Division:* https://unstats.un.org/unsd/demographic-social/products/dyb/dyb_2023/ (accessed 2 February 2025).

Deneen, P.J. 2018. *Why Liberalism Failed*. Politics and culture. New Haven: Yale University Press. https://doi.org/10.12987/yale/9780300223446.001.0001

Diamond, J.M. 1993. *The Third Chimpanzee: The Evolution and Future of the Human Animal*. New York: Harper Perennial.

Dribe, M., J.D. Hacker and F. Scalone. 2014. 'Socioeconomic status and net fertility during the fertility decline: A comparative analysis of Canada, Iceland, Sweden, Norway and the United States'. *Population Studies* **68** (2): 135–49. https://doi.org/10.1080/00324728.2014.889741

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. Princeton: Princeton University Press. https://doi.org/10.1177/095892879100100108

Garfinkel, I., C.-C. Huang, D.S. Gaylin and S.S. McLanahan. 2003. 'The roles of child support enforcement and welfare in non-marital childbearing'. *Journal of Population Economics* **16** (1): 55–70. https://doi.org/10.1007/s001480100108

Gay, R. 2003. 'Sweden backs off U.S.-style child support reforms'. *Canadian Children's Rights Council:* https://canadiancrc.com/newspaper_articles/Sweden_Backs_Off_US_Child_Support_06MAY03.aspx (accessed 3 February 2025).

Global Wage Report 2018/19. What lies behind gender pay gaps. 2018. International Labour Organization.

Goldin, C. 1994. *The U-Shaped Female Labor Force Function in Economic Development and Economic History*. Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.3386/w4707

González, L. and S.K. Trommlerová. 2023. 'Cash transfers and fertility: How the introduction and cancellation of a child benefit affected births and abortions'. *Journal of Human Resources* **58** (3): 783–818. https://doi.org/10.3368/jhr.59.1.0220-10725R2

Grossman, R. 2021. 'Costa Rica has a law to make men responsible for their children'. *Durango Herald:* https://www.durangoherald.com/articles/costa-rica-has-a-law-to-make-men-responsible-for-their-children/ (accessed 3 February 2025).

Hakovirta, M. and M. Jokela. 2018. 'Contribution of child maintenance to lone mothers' income in five countries'. *Journal of European Social Policy* **29** (2): 257–72. https://doi.org/10.1177/0958928717754295

Hakovirta, M. and M. Mesiäislehto. 2022. 'Lone mothers and child support receipt in 21 European countries'. *Journal of International and Comparative Social Policy* 1–21. https://doi.org/10.1017/ics.2021.15

Hakovirta, M., C. Skinner, H. Hiilamo and M. Jokela. 2020. 'Child poverty, child maintenance and interactions with social assistance benefits among lone parent families: A comparative analysis'. *Journal of Social Policy* **49** (1): 19–39. https://doi.org/10.1017/S0047279419000151

Handa, S., S. Daidone, A. Peterman, B. Davis, A. Pereira, T. Palermo and J. Yablonski. 2018. 'Myth-busting? Confronting six common perceptions about unconditional cash transfers as a poverty reduction strategy in Africa'. *The World Bank Research Observer* **33** (2): 259–98. https://doi.org/10.1093/wbro/lky003

Hansan, J.E. 2011. 'English poor laws: Historical precedents of tax-supported relief for the poor'. *Social Welfare History Project:* https://socialwelfare.library.vcu.edu/programs/poor-laws/ (accessed 21 December 2024).

Hansen, D.D. 1999. 'The American invention of child support: Dependency and punishment in early American child support law'. *The Yale Law Journal* **108** (5): 1123. https://doi.org/10.2307/797372

Harris, P.A., R. Taylor, B.L. Minor, V. Elliott, M. Fernandez… and S.N. Duda. 2019. 'The REDCap consortium: Building an international community of software platform partners'. *Journal of Biomedical Informatics* **95**: 103208. https://doi.org/10.1016/j.jbi.2019.103208

Harris, P.A., R. Taylor, R. Thielke, J. Payne, N. Gonzalez and J.G. Conde. 2009. 'Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support'. *Journal of Biomedical Informatics* **42** (2): 377–81. https://doi.org/10.1016/j.jbi.2008.08.010

Holmes, S., and C.R. Sunstein. 1999. *The Cost of Rights: Why Liberty Depends on Taxes*. 1st ed. New York: W.W. Norton.

Huang, C. 2001. 'The impact of child support enforcement on nonmarital and marital births: does it differ by racial and age groups?' *Social Service Review* **76** (2): 275–301. https://doi.org/10.1086/339666

Huang, C. and W. Han. 2004. 'Perceptions of child support and sexual activity of adolescent males'. *Journal of Adolescence* **27** (6): 731–48. https://doi.org/10.1016/j.adolescence.2004.03.008

Huang, C.-C. and K.-Q. Han. 2012. 'Child support enforcement in the United States: Has policy made a difference?' *Children and Youth Services Review* **34** (4): 622–27. https://doi.org/10.1016/j.childyouth.2011.12.006

Huang, C.-C. and W.-J. Han. 2007. 'Child support enforcement and sexual activity of male adolescents'. *Journal of Marriage and Family* **69** (3): 763–77. https://doi.org/10.1111/j.1741-3737.2007.00404.x

Lianos, T.P. and A. Pseiridis. 2016. 'Sustainable welfare and optimum population size'. *Environment, Development and Sustainability* **18** (6): 1679–99. https://doi.org/10.1007/s10668-015-9711-5

Lower secondary completion rate (% of relevant age group). 2023. *World Bank Gender Data Portal:* https://genderdata.worldbank.org/en/indicator/se-sec-cmpt-lo-zs (accessed 3 February 2025).

Marohn, C.L. 2020. *Strong Towns: A Bottom-up Revolution to Rebuild American Prosperity.* Hoboken, NJ: John Wiley & Sons.

Mead, L.M. 1997. 'The Rise of paternalism'. In L.M. Mead (ed.), *The New Paternalism: Supervisory Approaches to Poverty,* pp. 1–38. Washington, D.C.: Brookings Institution Press.

Milanich, N. 2017. 'Daddy issues: "Responsible paternity" as public policy in Latin America'. *World Policy Journal* **34** (3): 8–14. https://doi.org/10.1215/07402775-4280160

Mughniyya, M.J. 2016. 'The right to maintenance': https://al-islam.org/marriage-according-five-schools-islamic-law-muhammad-jawad-mughniyya/right-maintenance (accessed 1 February 2025).

Nieuwenhuis, R. and L. Maldonado. 2018. *The Triple Bind of Single-Parent families: Resources, Employment and Policies to Improve Well-being*. Bristol: Policy Press. https://doi.org/10.2307/j.ctt2204rvq

Nutt, T. 2006. 'The Child Support Agency and the old Poor Law'. *History & Policy:* https://www.historyandpolicy.org/index.php/policy-papers/papers/the-child-support-agency-and-the-old-poor-law (accessed 21 December 2024).

OECD Family Database. 2022. https://www.oecd.org/en/data/datasets/oecd-family-database.html (accessed 3 February 2025).

Pena, S.D.J. and R. Chakraborty. 1994. 'Paternity testing in the DNA era'. *Trends in Genetics* **10** (6): 204–09. https://doi.org/10.1016/0168-9525(94)90257-7

Plotnick, R., I. Garfinkel, S. McLanahan and I. Ku. 2007. 'The impact of child support enforcement policy on nonmarital childbearing'. *Journal of Policy Analysis and Management* **26** (1): 79–98. https://doi.org/10.1002/pam.20228

Plotnick, R.D., I. Garfinkel, S.S. McLanahan and I. Ku. 2004. 'Better child support enforcement: can it reduce teenage premarital childbearing?' *Journal of Family Issues* **25** (5): 634–57. https://doi.org/10.1177/0192513X03258311

Rawls, J. 1971. *A Theory of Justice: Original Edition*. Cambridge, MA: Harvard University Press. https://doi.org/10.4159/9780674042605

Samways, D. 2022. 'Population and sustainability: Reviewing the relationship between population growth and environmental change'. *The Journal of Population and Sustainability* **6** (1): 15–41. https://doi.org/10.3197/JPS.63772239426891

Saraswati, C.M., M.A. Judge, L.J.Z. Weeda, Q. Bassat, N. Prata … and C.J.A. Bradshaw. 2024. 'Net benefit of smaller human populations to environmental integrity and individual health and wellbeing'. *Frontiers in Public Health* **12**. https://doi.org/10.3389/fpubh.2024.1339933

Simon, J.L. 1981. *The Ultimate Resource*. Princeton: Princeton University Press.

Skinner, C., J. Bradshaw and J. Davidson. 2007. *Child Support Policy: An International Perspective* (no. 405). Leeds: Corporate Document Services.

Skinner, C. and J. Davidson. 2009. 'Recent trends in child maintenance schemes in 14 countries'. *International Journal of Law, Policy and the Family* 23 (1): 25–52. https://doi.org/10.1093/lawfam/ebn017

Solomon-Fears, C. 2016. 'The child support enforcement program: A legislative history': https://crsreports.congress.gov/product/pdf/R/R44423/4 (accessed 12 March 2026).

Tannenbaum, D.I. 2020. 'The effect of child support on selection into marriage and fertility'. *Journal of Labor Economics* 38 (2): 611–52. https://doi.org/10.1086/705928

Zea, T. 2023. 'In Latin America, many single mothers struggle to get child support. Activists and public officials are trying to change that'. *The World from PRX*: https://theworld.org/stories/2023/08/24/latin-america-many-single-mothers-struggle-get-child-support-activists-and-public, https://theworld.org/stories/2023/08/24/latin-america-many-single-mothers-struggle-get-child-support-activists-and-public (accessed 3 February 2025).

## Table A1. National Demographic Variables and Sources

| Variable | Source |
|---|---|
| Abortion Rate (model estimated) | Bearak, J.M., A. Popinchalk, C. Beavin, B. Ganatra … and L. Alkema. 2022. 'Country-specific estimates of unintended pregnancy and abortion incidence: A global comparative analysis of levels in 2015–2019'. *BMJ Global Health* **7** (3): e007151. https://doi.org/10.1136/bmjgh-2021-007151 |
| Adolescent Births (per 1,000 women) | Gender Inequality Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index |
| Birth Rate (per 1,000 people) | *Birth rate, crude (per 1,000 people)*. 2022. [Dataset]. World Bank Open Data. https://data.worldbank.org |
| Cantril Ladder Score | Helliwell, J., H. Huang, H. Shiplett and S. Wang. 2024. 'Happiness of the younger, the older, and those in between'. In *World Happiness Report*. University of Oxford. https://doi.org/10.18724/WHR-F1P2-QJ33 |
| Child Poverty (% income under $3.65 per day) | Salmeron Gomez, D., S. Engilbertsdottir, J.A. Cuesta Leiva, D. Newhouse and D. Stewart. 2023. *Global Trends in Child Monetary Poverty According to International Poverty Lines*. Washington, D.C.: World Bank. https://doi.org/10.1596/1813-9450-10525 |
| Child Poverty (% under half of median disposable income) | *OECD Family Database*. 2018. [Dataset]. https://www.oecd.org/en/data/datasets/oecd-family-database.html |
| Corruption Perceptions Index Score | *Corruption Perceptions Index Rank \| Indicator Profile \| Prosperity Data360*. 2023. [Dataset]. https://prosperitydata360.worldbank.org/en/indicator/TI+CPI+Rank |

| | |
|---|---|
| Death Rate (per 1,000 people) | *Death rate, crude (per 1,000 people)*. 2022. [Dataset]. World Bank Open Data. https://data.worldbank.org |
| Divorce Rate (2018–2022) | *UNSD – Demographic and Social Statistics*. 2023. https://unstats.un.org/unsd/demographic-social/products/dyb/dyb_2023/ |
| Education (years, 25 and older) | Human Development Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/human-development-index |
| Female Labor Force Participation (% women age 15+) | *Labor force participation rate (% of population)*. 2023. [Dataset]. World Bank Gender Data Portal. https://genderdata.worldbank.org/en/indicator/sl-tlf-acti-zs |
| Female Seats in Parliament (%) | Gender Inequality Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index |
| Female Some Secondary Education (%) | Gender Inequality Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index |
| GDP Per Capita (USD) | *GDP per capita (current US$)*. 2023. [Dataset]. https://data.worldbank.org |
| Gender Inequality Index Score | Gender Inequality Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index |
| GNI Per Capita (PPP) | GNI per capita, PPP (current international $). 2023. [Dataset]. https://data.worldbank.org |
| Hofstede Individualism Score | *Country comparison tool*. 2023. The Culture Factor Group. https://www.theculturefactor.com/country-comparison-tool |

| | |
|---|---|
| Income Equality (% of income to bottom half of earners) | *World Inequality Database*. 2023. [Dataset]. https://wid.world/data/ |
| Infant Mortality (per 1,000 births) | Gender Inequality Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index |
| Life Expectancy at Birth (years) | Human Development Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/human-development-index |
| Maternal Mortality (per 100,000 births) | Gender Inequality Index. 2022. [Dataset]. In *Human Development Reports*. United Nations. https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index |
| Population | *Population, total*. 2024. [Dataset]. https://data.worldbank.org |
| Unintended Pregnancy Rate (model estimated) | Bearak, J.M., A. Popinchalk, C. Beavin, B. Ganatra … and L. Alkema. 2022. 'Country-specific estimates of unintended pregnancy and abortion incidence: A global comparative analysis of levels in 2015–2019'. *BMJ Global Health* **7** (3): e007151. https://doi.org/10.1136/bmjgh-2021-007151 |

**Table A2. Frequencies of Categorical Variables**

| Variable | N | % |
|---|---|---|
| Administrative Agency | | |
| Yes | 24 | 26.4 |
| No | 67 | 73.6 |
| Public Assurance Programme | | |
| Yes | 27 | 29.7 |
| No | 64 | 70.3 |
| Employment Programme | | |
| Yes | 4 | 4.4 |
| No | 87 | 95.6 |
| Enforcement Score | | |
| 0 | 0 | 0 |
| 1 | 4 | 4.4 |
| 2 | 13 | 14.3 |
| 3 | 10 | 11.0 |
| 4 | 9 | 9.9 |
| 5 | 22 | 24.2 |
| 6 | 16 | 17.6 |
| 7 | 13 | 14.3 |
| 8 | 3 | 3.3 |
| 9 | 1 | 1.1 |
| Enforcement Score Category | | |
| Low (0–4) | 36 | 39.6 |
| High (5–9) | 55 | 60.4 |
| Enforcement Mechanisms | | |
| Minimum Payments | 28 | 30.8 |
| Cross-Border Treaties | 71 | 78.0 |
| Garnishments/Liens/Holds/Attachments | 84 | 92.3 |
| Fees/Interest on Arrears | 47 | 51.6 |
| Withholding Government Payments/Services | 40 | 44.0 |
| Credit Reporting | 23 | 25.3 |
| Restricted Travel | 39 | 42.9 |
| Criminal penalties | 81 | 89.0 |
| Public Shaming | 13 | 14.3 |

**Table A3. Distribution of Interval Variables**

| Variable | N | Mean (SD) | Median (IQR) |
|---|---|---|---|
| Abortion Rate (per 1,000 women) | 79 | 24.33 (15.66) | 21.00 (22.42) |
| Adolescent births (per 1,000 women) | 91 | 30.701 (30.52) | 15.66 (46.51) |
| Birth Rate (per 1,000 people) | 91 | 14.54 (7.35) | 11.6 (9.84) |
| Cantril Ladder Score (life satisfaction ranked 1-10) | 86 | 5.96 (1.04) | 6.13 (1.32) |
| Child Poverty (% income < $3.65 per day) | 75 | 15.19 (23.08) | 2.50 (21.70) |
| Child Poverty (% income < 1/2 of median) | 44 | 14.90 (7.36) | 12.85 (10.22) |
| Corruption Perception Index Score | 90 | 50.10 (19.09) | 45.50 (33.25) |
| Divorce Rate (per 1,000 people) | 52 | 1.78 (0.71) | 1.73 (0.87) |
| Education (years) | 91 | 10.37 (2.76) | 11.12 (4.04) |
| Female Labor Force Participation (%) | 91 | 53.64 (10.34) | 54.41 (9.54) |
| Female Seats in Parliament (%) | 90 | 29.41 (11.88) | 27.67 (18.75) |
| Female Some Secondary Education (%) | 91 | 72.97 (25.16) | 82.03 (39.87) |
| GDP Per Capita (USD) | 91 | 24,072.61 (26,859.91) | 13,365.36 (29,775.48) |
| Gender Inequality Index | 90 | .25 (.18) | 0.22 (0.32) |
| GNI Per Capita (PPP) | 91 | 28,679.54 (20,975.15) | 24,431.00 (32,972.27) |
| Hofstede Individualism Score | 79 | 46.67 (24.19) | 48.00 (40.00) |
| Income Equality (share of bottom 50%) | 91 | 15.88 (5.03) | 15.77 (8.89) |
| Infant Mortality (per 1,000 live births) | 91 | 12.86 (12.76) | 8.00 (17.80) |
| Life Expectancy (years) | 91 | 74.95 (7.54) | 75.93 (11.68) |
| Maternal Mortality (per 100,000 live births) | 90 | 73.99 (138.86) | 18.48 (76.38) |
| Unintended Pregnancy Rate (per 1,000 women) | 79 | 53.62 (27.24) | 44.38 (43.20) |

**Table A4. Nonparametric Tests by Enforcement Score Category (Low/High)**

| | Mann-Whitney U Test | | | | | Median Test | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Low (0–4) Mean Rank** | **High (5–9) Mean Rank** | **Test Statistic** | **P** | | **Low (0–4) Median** | **High (5–9) Median** | **χ2 Yates'** | **P** |
| Abortion Rate (per 1,000 women) | 50.35 | 34.92 | -2.807 | .005 | | 31.43 | 15.86 | 10.187 | .001 |
| Adolescent Births (per 1,000 women) | 52.25 | 41.91 | -1.826 | .068 | | 32.59 | 14.36 | 1.338 | .247 |
| Birth Rate (per 1,000 people) | 57.93 | 38.19 | -3.486 | <.001 | | 16.99 | 10.80 | 5.969 | .015 |
| Cantril Ladder (life satisfaction ranked 1-10) | 29.09 | 52.04 | 4.119 | <.001 | | 5.33 | 6.36 | 14.383 | <.001 |
| Child Poverty (% income < $3.65 per day) | 46.50 | 32.64 | -2.648 | .007 | | 9.40 | 1.55 | 3.955 | .047 |
| Child Poverty (% income < 1/2 of median) | 25.89 | 21.63 | 0.375 | .389 | | 14.00 | 12.30 | .559 | .455 |
| Corruption Perception Index | 39.14 | 49.55 | 1.842 | .065 | | 40.33 | 55.00 | 1.683 | .195 |
| Divorce Rate (per 1,000 people) | 23.50 | 27.40 | 0.782 | .434 | | 1.58 | 1.74 | .108 | .742 |
| Education (years) | 32.17 | 55.05 | 4.042 | <.001 | | 8.72 | 12.24 | 7.303 | .007 |
| Female Labour Force Participation (%) | 44.86 | 46.75 | 0.333 | .739 | | 54.63 | 53.98 | .017 | .897 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Female Seats in Parliament (%) | 36.81 | 51.30 | 2.578 | .010 | | 21.64 | 31.55 | 3.750 | .053 |
| Female Some Secondary Education (%) | 31.97 | 55.18 | 4.099 | <.001 | | 59.09 | 89.88 | 9.804 | .002 |
| GDP Per Capita (USD) | 33.89 | 53.93 | 3.539 | <.001 | | 4,905.58 | 18,732.50 | 9.804 | .002 |
| Gender Inequality Index | 58.01 | 37.16 | -3.710 | <.001 | | .41 | .16 | 7.824 | .005 |
| GNI Per Capita (PPP) | 35.58 | 52.82 | 3.044 | .002 | | 11,511.99 | 32,171.25 | 3.403 | .065 |
| Hofstede Individualism | 29.37 | 45.22 | 2.886 | .004 | | 29.50 | 54.33 | 6.529 | .011 |
| Income Equality (share of bottom 50%) | 39.10 | 50.52 | 2.017 | .044 | | .1415 | .1723 | 5.169 | .023 |
| Infant Mortality (per 1,000 live births) | 59.78 | 36.98 | -4.026 | <.001 | | 18.55 | 4.90 | 9.260 | .002 |
| Life Expectancy (years) | 36.36 | 52.31 | 2.816 | .005 | | 72.85 | 77.32 | 2.005 | .157 |
| Maternal Mortality (per 100,000 live births) | 59.08 | 36.44 | -4.027 | <.001 | | 94.82 | 11.41 | 7.824 | .005 |
| Unintended Pregnancy Rate (per 1,000 women) | 53.42 | 33.42 | -3.641 | <.001 | | 75.21 | 35.78 | 7.359 | .007 |

*Note.* Shaded cells are not statistically significant at $\alpha = .05$

**Table A5. Nonparametric Tests by Administrative Agency (No/Yes)**

| | Mann-Whitney U Test | | | | | Median Test | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **No Mean Rank** | **Yes Mean Rank** | **Test Statistic** | **P** | | **No Median** | **Yes Median** | **$\chi^2$ Yates's** | **P** |
| Abortion Rate (per 1,000 women) | 45.47 | 27.46 | -3.209 | .001 | | 29.27 | 12.36 | 9.649 | .002 |
| Adolescent births (per 1,000 women) | 50.51 | 33.42 | -2.720 | .007 | | 29.69 | 8.70 | 9.181 | .002 |
| Birth Rate (per 1,000 people) | 48.92 | 37.85 | -1.761 | .078 | | 14.47 | 9.93 | 9.181 | .002 |
| Cantril Ladder (life satisfaction ranked 1–10) | 37.06 | 60.13 | 3.842 | <.001 | | 6.02 | 6.79 | 6.993 | .008 |
| Child Poverty (% income < $3.65 per day) | 42.04 | 26.61 | -2.755 | .006 | | 5.45 | .30 | 6.135 | .013 |
| Child Poverty (% income < 1/2 of median) | 27.78 | 14.12 | -3.435 | <.001 | | 17.94 | 10.90 | 2.328 | .127 |
| Corruption Perception Index | 39.08 | 63.17 | 3.870 | <.001 | | 40.00 | 71.67 | 6.875 | .009 |
| Divorce Rate (per 1,000 people) | 25.03 | 29.05 | 0.922 | .357 | | 1.60 | 1.88 | 1.327 | .249 |
| Education (years) | 39.66 | 63.71 | 3.828 | <.001 | | 10.42 | 12.82 | 7.181 | .007 |
| Female Labor Force Participation (%) | 42.28 | 56.38 | 2.243 | .025 | | 53.52 | 57.99 | 1.568 | .210 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Female Seats in Parliament (%) | 40.97 | 57.96 | 2.728 | .006 | | 25.71 | 35.73 | 6.875 | .009 |
| Female Some Secondary Education (%) | 41.13 | 59.58 | 2.936 | .003 | | 74.42 | 94.82 | 9.957 | .002 |
| GDP Per Capita (USD) | 39.92 | 62.98 | 3.670 | <.001 | | 9,537.68 | 48,467.25 | 7.181 | .007 |
| Gender Inequality Index | 51.69 | 28.48 | -3.727 | <.001 | | .27 | .08 | 9.602 | .002 |
| GNI Per Capita (PPP) | 40.18 | 62.25 | 3.513 | <.001 | | 19,138.01 | 47,911.57 | 7.181 | .007 |
| Hofstede Individualism | 33.99 | 53.77 | 3.524 | <.001 | | 42.00 | 72.50 | 5.181 | .023 |
| Income Equality (share of bottom 50%) | 40.43 | 61.56 | 3.365 | <.001 | | .1450 | .2021 | 7.181 | .007 |
| Infant Mortality (per 1,000 live births) | 51.24 | 31.38 | -3.162 | .002 | | 10.90 | 3.45 | 3.818 | .051 |
| Life Expectancy (years) | 41.31 | 59.08 | 2.828 | .005 | | 74.58 | 82.02 | 7.181 | .007 |
| Maternal Mortality (per 100,000 live births) | 50.89 | 30.67 | -3.248 | .001 | | 38.69 | 7.20 | 6.875 | .009 |
| Unintended Pregnancy Rate (per 1,000 women) | 44.73 | 29.17 | -2.772 | .006 | | 64.23 | 33.83 | 9.649 | .002 |

*Note.* Shaded cells are not statistically significant at $\alpha = .05$

**Table A6. Nonparametric Tests by Public Assurance Program (No/Yes)**

| | Mann-Whitney U Test | | | | | Median Test | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **No Mean Rank** | **Yes Mean Rank** | **Test Statistic** | **P** | | **No Median** | **Yes Median** | **$\chi^2$ Yates's** | **P** |
| Abortion Rate (per 1,000 women) | 49.04 | 18.00 | -5.461 | <.001 | | 30.16 | 10.27 | 28.910 | <.001 |
| Adolescent Births (per 1,000 women) | 55.92 | 22.48 | -5.517 | <.001 | | 35.31 | 7.07 | 20.447 | <.001 |
| Birth Rate (per 1,000 people) | 55.05 | 24.56 | -5.031 | <.001 | | 15.70 | 9.10 | 24.809 | <.001 |
| Cantril Ladder (life satisfaction ranked 1-10) | 35.34 | 61.33 | 4.480 | <.001 | | 5.84 | 6.72 | 10.581 | .001 |
| Child Poverty (% income < $3.65 per day) | 47.58 | 17.65 | -5.552 | <.001 | | 9.13 | .30 | 26.209 | <.001 |
| Child Poverty (% income < 1/2 of median) | 30.74 | 16.24 | -3.708 | <.001 | | 19.13 | 10.30 | 13.339 | <.001 |
| Corruption Perception Index | 36.11 | 67.41 | 5.210 | <.001 | | 37.67 | 62.00 | 25.608 | <.001 |
| Divorce Rate (per 1,000 people) | 23.31 | 29.69 | 1.519 | .129 | | 1.57 | 1.85 | 3.769 | .052 |
| Education (years) | 36.22 | 69.19 | 5.439 | <.001 | | 9.10 | 12.92 | 17.632 | <.001 |
| Female Labour Force Participation (%) | 43.86 | 51.07 | 1.190 | .234 | | 53.23 | 55.77 | .972 | .324 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Female Seats in Parliament (%) | 4214 | 53.33 | 1.862 | .063 | | 26.27 | 33.08 | 3.386 | .066 |
| Female Some Secondary Education (%) | 36.99 | 67.35 | 5.009 | <.001 | | 65.55 | 95.50 | 17.632 | <.001 |
| GDP Per Capita (USD) | 36.33 | 68.93 | 5.378 | <.001 | | 6,897.17 | 32,394.68 | 31.092 | <.001 |
| Gender Inequality Index | 56.34 | 20.20 | -6.014 | <.001 | | .37 | .07 | 30.476 | <.001 |
| GNI Per Capita (PPP) | 36.38 | 68.81 | 5.352 | <.001 | | 14,927.75 | 43,588.26 | 36.421 | <.001 |
| Hofstede Individualism | 30.14 | 58.98 | 5.299 | <.001 | | 34.50 | 69.00 | 23.287 | <.001 |
| Income Equality (share of bottom 50%) | 35.48 | 70.94 | 5.853 | <.001 | | .1348 | .2043 | 31.092 | <.001 |
| Infant Mortality (per 1,000 live births) | 56.87 | 20.24 | -6.043 | <.001 | | 11.97 | 3.08 | 28.156 | <.001 |
| Life Expectancy (years) | 37.48 | 66.19 | 4.735 | <.001 | | 73.57 | 82.24 | 13.988 | <.001 |
| Maternal Mortality (per 100,000 live births) | 56.03 | 20.93 | -5.842 | <.001 | | 65.75 | 4.82 | 30.476 | <.001 |
| Unintended Pregnancy Rate (per 1,000 women) | 48.59 | 19.09 | -5.191 | <.001 | | 67.00 | 28.98 | 28.910 | <.001 |

*Note.* Shaded cells are not statistically significant at $\alpha = .05$